SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)
Small Launchers: Concepts and Operations (7)

Author: Mr. Jonas Bianchini Fulindi
Instituto de Aeronáutica e Espaço (IAE), Brazil, jonas.bianchini@yahoo.com.br

Dr. Luis Eduardo Loures da Costa
CTA-IAE, Brazil, loures@iae.cta.br
Mr. Josef Ettl
Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany, josef.ettl@dlr.de

THE EVOLUTION OF THE MICROSATELLITE LAUNCH VEHICLE PROJECT PHASE

Abstract

This paper presents the evolution of the Microsatellite Launch Vehicle Project Phase using the systems concurrent engineering method, demonstrated by the use of a commercial systems engineering environment software. The product (VLM), its life cycle processes and their performing organizations are concurrently modeled throughout the processes of stakeholder analysis, requirement analysis, functional analysis, implementation analysis at each layer of the system breakdown structure. Since the last two years the requirements captured using the method evolved and the process to implement them became more mature due to the use of the software. The paper presents the method, its demonstration on the VLM example in the current phase of the project and the traceability in the process. Conclusions are that the anticipation of the product-processes-organization during the conception phase of the development, their interactions to the early stages of the project produces gain in productivity and development time. This aided to the cost planning of the product and the contractor industry to the next phases of the VLM project.